



**STRAMIT  
MEGACLAD®**  
ROOF AND WALL  
CLADDING

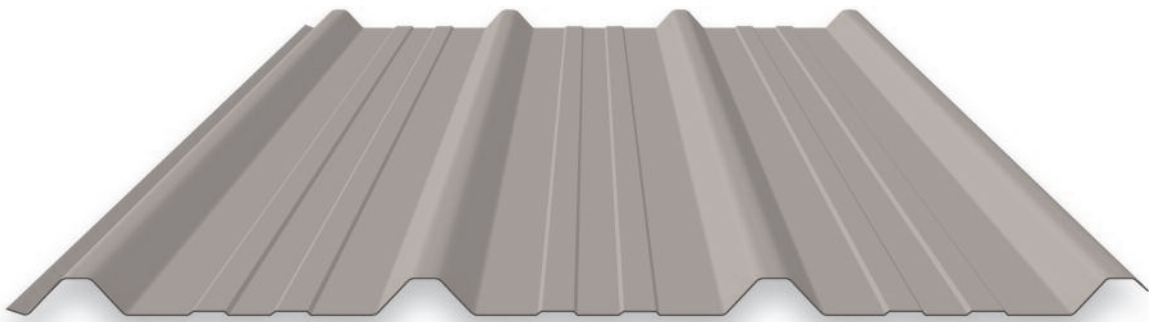
p r o d u c t   t e c h n i c a l   m a n u a l



# STRAMIT MEGACLAD®

## ROOF AND WALL CLADDING

### Selection & Specification



#### Features

- Hi-tensile Steel – lightweight with high strength.
- Economical – unique combination of features provides a lower installed cost.
- Less Fasteners – reduces cost of screws and installation.
- 800mm Cover – quick and easy installation.
- Spaced Ribs – greater water carrying capacity providing longer runs.
- 2° Minimum Pitch – reduces support structure.
- Less Work – fewer turn-ups and downs, less flashing, notching and fewer fasteners to install.

#### Applications

The wide cover, light weight and weather resistance of **Stramit Megaclad®** cladding make it perfect for many industrial, commercial and rural roofing and walling applications. Its optimized rib spacing and ease of assembly allow for economical and practical spans. The large water-carrying capacity and weather-tightness permit very low roof pitches, leading to further economies in the building structure.

#### IMPORTANT NOTE

The information contained within this brochure is for general use and information only. Before application in a particular situation, Stramit recommends that you obtain appropriate independent qualified expert advice confirming the suitability of product(s) and information in question for the application proposed. While Stramit accepts its legal obligations, be aware however that to the extent permitted by law, Stramit disclaims all liability (including liability for negligence) for all loss and damage resulting from the use of the information provided in this brochure.

## Materials

**Stramit Megaclad**® cladding is manufactured from hi-tensile G550 colour coated steel, aluminium-zinc-magnesium alloy coated or zinc-aluminium alloy coated steel. In some locations galvanised and severe environment colour coated steel may be available by arrangement. Colour coated steels are in accordance with AS2728 – Category 3 and, for the substrate, with AS1397. Aluminium-zinc-magnesium alloy coated AM100/AM125, zinc-aluminium alloy coated AZ150 and galvanised Z450 conform to AS1397.

Stramit has a comprehensive range of colours as standard. Ask your nearest Stramit location for colour availability.

### STRAMIT MEGACLAD® CLADDING – SHEETING MASS (kg/m<sup>2</sup> of roof area)

	ZINCALUME®	COLORBOND®	GALVANISED
0.42mm BMT	4.07	4.14	4.44
0.48mm BMT	4.63	4.70	4.99

## Adverse Conditions

**Stramit Megaclad**® roof and wall cladding will give excellent durability in almost all locations. It is however important to choose the correct coating for each application environment as shown in the table below. Durability recommendations do vary based on the application of the product, in roofing or walling installations. Please read the tables below carefully.

suitability of coating type	roof sheeting - site exposure condition				wall cladding - distance from marine environment
	benign/moderate	marine	severe marine	very severe marine	
Zinc-Aluminium (AZ150)	✓	✗	✗	✗	>1km
ZINCALUME® (AM125)	✓	✓	✗	✗	>1km
COLORBOND®	✓	✓	✗	✗	>1km
COLORBOND® METALLIC	✓	✗	✗	✗	>1km
COLORBOND® ULTRA	N/A	N/A	✓	✗	501m-1000m
COLORBOND® STAINLESS	N/A	N/A	N/A	✓	0m-500m

The approximate site exposure conditions in the table above are defined below.

site exposure condition	roof sheeting - distance of site from	
	breaking surf/ exposed marine	calm marine
benign	>1km	>1km
moderate	401m-1000m	201-1000m
marine	201m-400m	101m-200m
severe marine	101m-200m	0m-100m
very severe marine	0m-100m	N/A

The suitability and exposure tables above are current at the time of publication and are guidelines only; conditions will vary from site to site. Please check the Bluescope Technical Bulletins at [www.bluescopesteel.com.au](http://www.bluescopesteel.com.au) for the latest information and guidance on selection, maintenance and durability. If uncertain about the appropriate coating for a particular application, or if the product is to be used in environments affected by industrial emissions, fossil fuel combustion, animal farming, or has unwashed areas, please contact your nearest Stramit office for advice.

## Compatibility

All building products need to be checked for compatibility with adjacent materials. These checks need to be for both direct contact between materials, and where water runs from one material to another. The following guidelines generally avoid material incompatibility:

- For zinc-aluminium alloy coated steel, colour coated steel and galvanised steel roofs avoid copper, lead, green or treated timber, stainless steel, uncoated steel and mortar or concrete.
- In addition galvanised steel roofs should not receive drainage from aluminium or any inert materials, such as plastics, glass, glazed tiles, colour coated and zinc-aluminium alloy. Contact Stramit for more detailed information.

## Testing

Stramit has in-house, purpose built, testing equipment used to design, develop and improve products for the Australian market. In addition many Stramit products are tested or witnessed by independent organisations. These include:

- Cyclone Structural Testing Station (James Cook University)
- The University of Sydney
- University of Technology, Sydney

This ongoing research and development activity ensures that Stramit remains at the forefront of innovation, design and consumer information.

## Architectural Specification

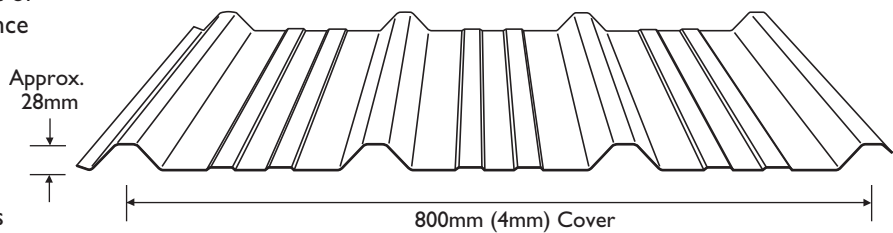
This specification can be found on the Stramit web site and can be easily downloaded onto your documentation.

The roofing/walling shall be 0.42 (or 0.48) mm BMT **Stramit Megaclad**® cladding in continuous lengths with trapezoidal ribs 28mm high, spaced at 267mm centres. Sheeting material shall be protected steel sheet to Australian Standard AS1397, with a minimum yield stress of 550MPa (Grade G550) and an AM100/AZ150 coating with an oven-baked paint film of selected colour, or a plain AM125/AZ150 coating. The sheeting shall be fixed to the purlins/girts in accordance with the manufacturer's recommendations. Suitable fixing screws in accordance with Australia Standard AS3566, Class 3, shall be used at every support with side lap fasteners installed at mid span. Sheets shall be laid in such a manner that the approved side lap faces away from the prevailing weather. A minimum of 50mm shall be provided for projection into gutters. Flashings shall be provided in compatible materials as specified; minimum cover of flashing shall be 150mm. All sheeting shall be fixed in a workman-like manner, leaving the job clean and weathertight. Repair minor blemishes with touch-up paint supplied by the roof manufacturer. All debris (nuts, screws, cuttings, filings etc.) shall be cleaned off daily.

# Design

## Spans

The spans shown below take account of 'normal' foot traffic and wind resistance including local pressure zone effects. Pressures are based on AS4055 or AS1170.2 section 2. Where the two standards differ, the worst case has been taken for each classification. Data should only be used for buildings 7m or less in height, 1000m<sup>2</sup> or less in area, where both length and width exceed the building height and site is unaffected by land topography.



### STRAMIT MEGA CLAD® CLADDING – MAXIMUM SPAN CHART (mm)

bmt (mm)	roofs - all areas unless noted*					walls					overhangs	
	pressure (kPa) service -ability	pressure (kPa) strength	double spans	equal spans	internal (end) span combination	pressure (kPa) service -ability	pressure (kPa) strength	double spans	equal spans	internal (end) span combination	free edge	stiffened edge
<b>N1 or Region A (TC3, FS) WIND CLASSIFICATION</b>												
0.42	1.07	1.81	1250	1250	1500 (1250)	0.55	0.94	2250	2350	2550 (2150)	100	300
0.48	1.07	1.81	1500	1500	1800 (1500)	0.55	0.94	2300	2600	2650 (2200)	150	350
<b>N2 or Region B (TC3, FS) or Region A (TC2.5, PS) WIND CLASSIFICATION</b>												
0.42	1.05	1.75	1250*	1250*	1500 (1250)*	0.79	1.31	1850	2050	2100 (1750)	100	250
	<i>1.53</i>	<i>2.53</i>	<i>1200</i>	<i>1250</i>	<i>1300 (1100)</i>							
0.48	1.05	1.75	1500*	1500*	1800 (1500)*	0.79	1.31	2000	2150	2400 (2000)	150	300
	<i>1.53</i>	<i>2.53</i>	<i>1400</i>	<i>1450</i>	<i>1800 (1500)</i>							
<b>N3 or Region B (TC2.5, PS) or Region A (TC2, NS) WIND CLASSIFICATION</b>												
0.42	1.32	2.70	1250*	1250*	1450 (1200)*	0.99	2.03	1600	1800	1800 (1500)	100	300
	<i>1.92</i>	<i>3.92</i>	<i>1050</i>	<i>1100</i>	<i>1050 (900)</i>							
0.48	1.32	2.70	1500*	1500*	1800 (1500)*	0.99	2.03	1800	1900	2250 (1850)	150	400
	<i>1.92</i>	<i>3.92</i>	<i>1250</i>	<i>1250</i>	<i>1600 (1350)</i>							

\*Where roof pitch is less than 10 degrees, use spans given in red italics for roof corners.

Internal spans must have both end spans 20% shorter. TC - Terrain category. FS, PS, NS - Full, partial and no shielding.

Values are only valid for use with steel members of 1.5mm or thicker. Where thinner supports are used, fastener capacity must be checked. Refer to **Stramit® Top Hat & Battens Product Technical Manual** for more information.

For more specific applications **Stramit Megaclad®** cladding must be designed to the pressure and foot traffic limitations below.

## Pressures

### STRAMIT MEGA CLAD® CLADDING – SERVICEABILITY LIMIT STATE CAPACITY

thickness bmt(mm)	fasteners per sheet	span type	pressure (kPa) at the spans (mm) shown									
			600	900	1200	1500	1800	2100	2400	2700	3000	
0.42	3	internal	3.18	2.31	1.72	1.31	1.02	0.81	0.64	0.50	0.39	
		equal	2.56	2.27	1.76	1.34	1.01	0.75	0.54	0.38	0.24	
		double	3.86	2.30	1.56	1.12	0.83	0.63	0.47	0.36	0.26	
0.48	3	internal	2.97	2.97	2.67	2.13	1.63	1.19	0.83	0.52	0.26	
		equal	5.65	3.18	2.09	1.49	1.10	0.84	0.65	0.50	0.39	
		double	6.44	3.38	2.10	1.41	0.99	0.70	0.50	0.34	0.22	

### STRAMIT MEGA CLAD® CLADDING – STRENGTH LIMIT STATE CAPACITY (Non-cyclonic)

thickness bmt(mm)	fasteners per sheet	span type	pressure (kPa) at the spans (mm) shown									
			600	900	1200	1500	1800	2100	2400	2700	3000	
0.42	3	internal	9.25	5.39	3.80	2.95	2.44	2.09	1.84	1.65	1.51	
		equal	12.43	6.05	3.48	2.49	2.06	1.86	1.78	1.74	1.74	
		double	4.51	4.63	3.92	3.24	2.69	2.24	1.88	1.58	1.33	
0.48	3	internal	12.43	9.44	6.76	5.18	4.15	3.41	2.87	2.45	2.11	
		equal	12.43	8.74	5.42	4.07	3.44	3.13	2.96	2.87	2.83	
		double	11.91	8.91	6.75	5.25	4.16	3.34	2.70	2.19	1.77	

Tables are based on testing to AS1562 and AS4040 parts 0, 2 and 3. Internal spans must have both end spans 20% shorter. Values only valid for use with steel support members of 0.75mm or thicker.

## Foot Traffic

Foot traffic limits for **Stramit Megaclad**® cladding are shown for three alternate foot traffic categories. These are:

- High Maintenance – for applications with repeated maintenance, particularly where personnel may be unfamiliar with correct procedures for walking on metal roofs.
- Normal – based on traditional expectations, with moderate maintenance foot traffic using designated foot paths.
- Controlled – spans that conform to AS1562 but require minimal careful foot traffic only on the designated foot path. Suggested for use only where occasional aesthetic imperfections from foot traffic are acceptable.

### STRAMIT MEGACLAD® CLADDING – FOOT TRAFFIC LIMITED SPANS (mm)

thickness bmt	fasteners per sheet	span type	foot traffic limits		
			heavy	normal	controlled
0.42	4	internal	-	1500	1800
		equal	-	1250	1500
		double	-	1250	1500
0.48	4	internal	800	1800	2100
		equal	600	1500	1800
		double	600	1500	1800

Tables are based on tests to AS1562 and AS4040 parts 0 and 1.

For more information on foot traffic performance of **Stramit Megaclad**® cladding and other Stramit roofing profiles refer to Stramit's Foot Traffic Guide.

## Spring Curving

**Stramit Megaclad**® cladding can be spring-curved, concave and convex, including curved ridges, provided it is sealed at the apex and within the recommended limits below:

### STRAMIT MEGACLAD® CLADDING – SPRING-CURVED RADII LIMITS (m)

bmt (mm)	performance restricted		restricted by drainage at the rainfall intensities shown		
	minimum* radius	lowest neutral radius	370 mm/hr	220 mm/hr	150 mm/hr
0.42	70	70	135	228	334
0.48	70*	80	135	228	334

\*At these radii a maximum support spacing of 1200mm applies, and limit state pressure capacities are reduced by 14% for serviceability and 7% for strength. These reductions apply proportionately up to the lowest neutral radius.

For more comprehensive information on spring curving **Stramit Megaclad**® cladding and other Stramit roofing profiles refer to the Stramit Spring Curving Guide.

## Thermal Expansion

All metal roof sheeting is subject to thermal expansion and, where there is a temperature difference between the sheeting and the structure, this needs to be accommodated. The colour of the sheeting will affect the amount of thermal expansion, and whether the sheet is flat or curved will affect its ability to resist without problems.

Sheet lengths should be limited to those shown below.

### STRAMIT MEGACLAD® CLADDING – MAXIMUM SHEET LENGTH (m)

roof colour	light	dark
Flat	25	17
Spring-curved	20	17

## Water Carrying

**Stramit Megaclad**® cladding has excellent water-carrying capacity. This and the sheeting stiffness enable roof slopes to be as low as 2° for many applications. Roof run lengths are the combined lengths of all roof elements contributing to a single pan drainage path. This can include the roof length upstream of a roof penetration that concentrates flow into other pans. The table below gives slopes for 100 year return period rainfall intensity.

### STRAMIT MEGACLAD® CLADDING – MINIMUM ROOF SLOPE (degrees)

rainfall intensity mm/hr	total roof run length (m)													
	40	50	60	70	80	90	100	110	120	130	140			
150								2.0	2.1	2.6	3.1			
175	<i>Minimum</i>							2.0	2.5	3.1	3.8	4.6		
200	<i>Slope 2.0°</i>							2.0	2.1	2.8	3.5	4.4	5.3	6.3
225				2.0	2.1	2.9	3.7	4.7	5.8	6.9	8.2			
250				2.0	2.8	3.7	4.8	6.0	7.3	8.8	11			
275			2.0	2.5	3.5	4.7	6.0	7.5	9.1	11	13			
300	2.0	2.1	3.1	4.4	5.8	7.3	9.1	11	13	16	18			
325	2.0	2.6	3.8	5.3	6.9	8.8	11	13	16	18	21			
350	2.0	3.1	4.6	6.3	8.2	11	13	16	18	21	25			
375	2.0	2.3	3.7	5.4	7.3	9.5	12	15	18	21	25			
400	2.0	2.8	4.4	6.3	8.5	11	14	17	21	24	28			

Exceeds the scope of this manual

Note: Depth of flow in pan = 60% height of underlap (agreed industry standard)

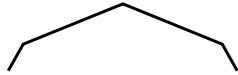
For more information on water carrying performance of **Stramit Megaclad**® cladding and other Stramit roofing profiles refer to Stramit's Roof Slope Guide.

## Procurement

### Prices

Prices on **Stramit Megaclad**® cladding and its accessories can be obtained from your nearest Stramit location or distributor of Stramit products. As Stramit does not provide an installation service, ask your tradesperson for a supply and fix price. Contact your nearest Stramit location for the names of tradespersons in your area.

### Related Products



**Ridge Capping** – standard or custom dimensions

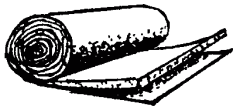


**Flashings** – a range of custom flashings



**Filler Strips** – top and bottom; for eaves, ridge and joint sealing

Use only where sealing is preferred to ventilation



**Insulation & roofing mesh** – a range of mesh, sisalation, plain & foil backed blanket



**Translucent sheeting** – fibreglass sheeting in a range of shades and densities

### Length

**Stramit Megaclad**® cladding is supplied cut-to-length. When designing or transporting long products ensure that the length is within the limit of the local Transport Authority regulations. The manufacturing tolerance on the length of product supplied is +0, -15mm.

### Ordering

**Stramit Megaclad**® cladding can be ordered directly, through distributors, or supplied and fixed from a roofing contractor.

### Delivery/Unloading

Delivery can normally be made within 48 hours, subject to the delivery location, quantity and material availability, or can be at a pre-arranged date and time. Please ensure that suitable arrangements have been made for truck unloading, as this is the responsibility of the receiver. Pack mass may be up to one tonne. When lifting **Stramit**

**Megaclad**® cladding, care should be taken to ensure that the load is spread to prevent damage.

### Handling/Storage

**Stramit Megaclad**® cladding should be handled with care at all times to preserve the product capabilities and quality of the finish. Packs should always be kept dry and stored above ground level while on site. If the sheets have become wet, they should be separated, wiped and placed in the open to promote drying.

## Installation

### Fasteners

All fastening screws must conform to AS3566 – Class 3. They are to be hexagon headed and must be used with sealing washers. For connecting to purlins or top hats use:



**For steel** (0.75bmt or greater)  
– No.12 x 45mm self-drilling and threading screws for crest fixing



– No.10 x 16mm self-drilling and threading screws for pan fixing to walls



**For timber** (F11 or better)  
– No. 12 x 65mm type 17 screws for crest fixing



– No.10 x 25mm type 17 screws for pan fixing to walls



**Side Laps**  
– No. 8 x 12mm 'S' point screws, or  
– 3.2mm diameter sealed aluminium pop rivets

### Installation

**Stramit Megaclad**® cladding is readily installed with or without fibreglass insulation blanket. If practical lay sheets in the opposite direction to prevailing weather.

Installation of **Stramit Megaclad**® cladding is a straightforward procedure using the following fixing sequence:

- 1) Ensure all purlins are in line and correctly installed and that mesh and blanket (if specified) are in place.
- 2) Position and fix the first sheet ensuring the correct sheet overhangs (minimum 50mm). Ensure that screws are not overtightened.
- 3) Continue to fix subsequent sheets checking that sheet ends at the lower edge are exactly aligned.

It is important that the underlap of one sheet does not protrude beyond the overlap of the next – if this

is unavoidable, the underlap must be trimmed locally or water 'drawback' may occur.

- 4) Measure the overall cover width at top and bottom of the sheets from time to time to avoid 'fanning'.
- 5) For roof spans exceeding 900mm and wall spans exceeding 1200mm, stitch the sidelaps at midspan.
- 6) Turn up the pans at the upper roof edge and turn down the pans at the lower edge and install flashings.
- 7) Clean up the roof after each days work, removing all screws, cuttings, swarf etc, and leave roof clean and watertight.

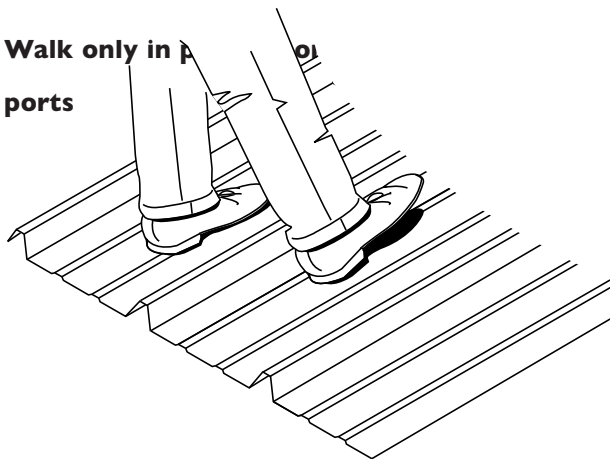
### **Insulation**

**Stramit Megaclad**<sup>®</sup> cladding is suitable for use with insulating blanket. Glasswool blanket up to 50mm thick can be readily used. Increased thicknesses require longer fasteners and greater care in installation.

### **Walking**

As with all roofing products, we recommend extra caution be taken when walking on the roof. When walking on **Stramit Megaclad**<sup>®</sup> cladding roofing always wear flat rubber soled shoes and place feet only in the pans, taking care to avoid the last pan or two near edges of the metal roof area.

**Walk only in the pans**



### **Good Practice**

Stramit recommends that good trade practice be followed when using this product, such as that found in Australian Standards Handbook HB39.

### **Cutting**

**Stramit Megaclad**<sup>®</sup> cladding can be easily cut, where required, using a power saw with a steel cutting blade or a power nibbler and, for localised cutting, tin snips. Avoid the

use of abrasive discs as these can cause burred edges and coating damage. Please dispose of any off-cuts carefully.



The Stramit web page can be found at:

[www.stramit.com.au](http://www.stramit.com.au)

Details of many **Stramit**® products can also be seen on the AIA site 'Product Selector' at:

[www.selector.com.au](http://www.selector.com.au)

## Building Products

		prices	availability	general	technical
contact numbers for information			products coating colours	other	advice product data
<b>SYDNEY</b> 33-83 Quarry Road, Erskine Park NSW 2759	phone fax	<b>(02) 9834 0909</b> (02) 9834 0988		<b>(02) 9834 0900</b> (02) 9834 0988	
<b>CANBERRA</b> 4 Bass Street, Queanbeyan NSW 2620	phone fax	<b>(02) 6297 3533</b> (02) 6297 8089			
<b>COFFS HARBOUR</b> 6 Mansbridge Drive, Coffs Harbour NSW 2450	phone fax	<b>(02) 6656 3800</b> (02) 6656 3808			<b>(02) 4954 5033</b> (02) 4954 5856
<b>NEWCASTLE</b> 17 Nelson Road, Cardiff NSW 2285	phone fax	<b>(02) 4954 5033</b> (02) 4954 5856			
<b>ORANGE</b> 51 Leewood Drive, Orange NSW 2800	phone fax	<b>(02) 6361 0444</b> (02) 6361 9814			
<b>MELBOURNE</b> 2/1464 Ferntree Gully Road, Knoxfield VIC 3180	phone fax	<b>(03) 9237 6300</b> (03) 9237 6399		<b>(03) 9237 6200</b> (03) 9237 6299	
<b>ALBURY</b> 18 Ariel Drive, Albury NSW 2640	phone fax	<b>(02) 6041 7600</b> (02) 6041 7666			
<b>BENDIGO</b> Ramsay Court, Kangaroo Flat VIC 3555	phone fax	<b>(03) 5448 6400</b> (03) 5447 9677			
<b>MILDURA</b> 19 - 23 Adams Street, Mildura VIC 3500	phone fax	<b>(03) 5018 4800</b> (03) 5021 0557			
<b>TASMANIA</b> 57 Crooked Billett Drive, Brighton TAS 7030	phone fax	<b>(03) 6263 5536</b> (03) 6263 6950			<b>(03) 6263 5536</b> (03) 6263 6950
<b>ADELAIDE</b> 11 Stock Road, Cavan SA 5094	phone fax	<b>(08) 8262 4444</b> (08) 8262 6333			<b>(08) 8262 4444</b> (08) 8262 6333
<b>BRISBANE</b> 57-71 Platinum Street, Crestmead QLD 4132	phone fax	<b>(07) 3803 9999</b> (07) 3803 1499			
<b>TOWNSVILLE</b> 402-408 Bayswater Road, Garbutt QLD 4814	phone fax	<b>(07) 4779 0844</b> (07) 4775 7155			
<b>CAIRNS</b> 53 Vickers Street, Edmonton QLD 4869	phone fax	<b>(07) 4045 3069</b> (07) 4045 4762			
<b>MACKAY</b> 6 Brickworks Court, Glenella QLD 4740	phone fax	<b>(07) 4942 3488</b> (07) 4942 2343			<b>(07) 3803 9999</b> (07) 3803 1499
<b>MARYBOROUGH</b> 10 Activity St, Maryborough QLD 4650	phone fax	<b>(07) 4121 2433</b> (07) 4123 3139			
<b>ROCKHAMPTON</b> 41 Johnson St, Parkhurst QLD 4702	phone fax	<b>(07) 4936 2577</b> (07) 4936 4603			
<b>DARWIN</b> 55 Albatross Street, Winnellie NT 0820	phone fax	<b>(08) 8947 0780</b> (08) 8947 1577			
<b>PERTH</b> 605-615 Bickley Road, Maddington WA 6109	phone fax	<b>(08) 9493 8800</b> (08) 9493 8899			

® Registered trademarks of Stramit Corporation Pty Limited. ABN 57 005 010 195 trading as Stramit Building Products

A member of the Fletcher Building Group

COLORBOND® and ZINCALUME® are registered trademarks of BlueScope Steel Limited

© Stramit Corporation Pty. Limited March 2014.

This document replaces all previous issues. Please destroy, or clearly mark as superseded, all previous issues.